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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,255	01/27/2004	Stephen W. Foss	6080 FOSP39DIV5	9575
26486	7590	02/10/2006	EXAMINER	
PERKINS, SMITH & COHEN LLP ONE BEACON STREET 30TH FLOOR BOSTON, MA 02108			GRAY, JILL M	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,255

Applicant(s)

FOSS ET AL.

Examiner

Jill M. Gray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 1-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

All double patenting rejections have been withdrawn in view of applicants' arguments.

The rejection of claims 46-47 and 49-50 under 35 U.S.C. 103(a) as being unpatentable over Rock et al, 6,194,332 B1 in view of Emi et al, 4,784,909 is withdrawn in view of applicants' amendments.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 46-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morrison 3,959,556 in view of Rock et al, 6,194,332 B1 (Rock) and Emi et al, 4,784,909 (Emi).

Morrison teaches admixing naturally occurring fiber with synthetic fibers prepared by extruding a spinnable solution of a synthetic thermoplastic resin and at least 0.15 weight of an anti-microbial agent into a strand having a denier of 1.5-60dpf. See abstract. In addition, Morrison teaches using polyolefins such as polypropylene and polyethylene to form the synthetic fibers, among other man-made materials. Note column 2, lines 52-65. Morrison teaches that fibers treated with the anti-microbial agent are formed by heating a mixture of the thermoplastic resin and the anti-microbial agent

to a temperature above that of both the resin and the agent produces a fibers with the anti-microbial agent distributed within the plastic that has the inherent property of migrating to the surface of shaped articles formed from the plastic to provide a surface coating of anti-microbial agent. Further, Morrison also teaches that the removal of this surface coating will result in additional anti-microbial agent migrating from the interior of the molded article to replenish the surface coating. This property can be utilized to effectively impart anti-microbial properties of a more permanent nature to naturally occurring fibers by combining the fibers prepared from plastics that have been treated with an anti-microbial agent. The treated fibers provide replenishing of the coating of anti-microbial agent on naturally occurring fibers in garments containing such fibers to provide continuous protection in spite of the fact that such garments are subjected to wearing, laundering and the like. See column 2, lines 1-34. In the alternative, the synthetic filaments or yarns and naturally occurring fibers or yarns may be intimately admixed by twisting or more yard ends. See column 3, lines 21-25. Morrison is silent as to the application of heat to the blend of fibers and the reference fails to teach anti-microbial additives from the group consisting of copper, zinc, tin and silver.

Emi teaches an anti-fungus, deodorant fiber material comprising synthetic polymer fibers, a deodorant material and copper particles as an anti-fungus material. The fiber material may contain additional fibers such as cotton, wool, viscose, rayon, cellulose acetate fibers, polyamide fibers, polyester fibers, polyacrylic fibers, and polyolefin fibers in addition to the deodorant, anti-fungus fibers. See column 7, lines 19-26. In addition, Emi teaches that the blend can be heat-treated.

Rock teaches an anti-microbial fabric comprising a multi-layer fabric comprising a plurality of layers wherein at least one layer is made at least in part of synthetic binder fibers which can have an anti-microbial additive added thereto, said fibers being blended with fibers that are free of said anti-microbial additive. See column 3, lines 19-25 and column 4, lines 10-13. The synthetic fibers can be nylon or other man-made fibers and the anti-microbial agent is of the type contemplated by applicants such as copper or silver. In addition, the fibers free of said anti-microbial additive can be fibers such as wool or rayon.

Emi and Rock are each directed to providing anti-microbial properties to fibrous materials, accordingly, the purpose disclosed by Emi and Rock would have been recognized in the pertinent art of Morrison.

It would have been obvious to the skilled artisan at the time the invention was made to modify the treated fibers of Morrison and use a silver or copper additive instead of the organic compounds taught by Morrison since these are shown by Rock to be functional equivalents in the production of anti-microbial fibrous materials. Further, it would have been obvious at the time the invention was made to a person having ordinary skill in the art of non-woven techniques to apply heat-treatment to the blend in order to autogenously bond the fibers by softening the binder fibers and have the naturally occurring fibers in contact with the treated fibers and provide the beneficial property of replenishing of the coating of anti-microbial agent on naturally occurring fibers in garments containing such fibers to provide continuous protection in spite of the

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fact that such garments are subjected to wearing, laundering and the like, as taught by Morrison.

Response to Arguments

3. Applicant's arguments with respect to claims 46-50 have been considered but are moot in view of the new ground(s) of rejection.

No claims are allowed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

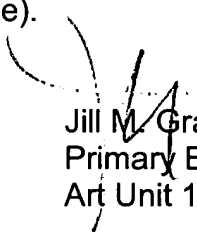
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jill M. Gray
Primary Examiner
Art Unit 1774

jmg